

RAW SEQUENCE LISTING DATE: 04/30/2001
PATENT APPLICATION: US/09/721,479A TIME: 08:50:08

Input Set : A:\seqlist.txt
Output Set: N:\CRF3\04302001\1721479A.raw

3 <110> APPLICANT: Coit, Doris
4 Medina-Selby, Angelica
5 Selby, Mark
6 Houghton, Michael
8 <120> TITLE OF INVENTION: NOVEL HCV NON-STRUCTURAL POLYPEPTIDE
10 <130> FILE REFERENCE: PP01617.002
12 <140> CURRENT APPLICATION NUMBER: US 09/721,479A
13 <141> CURRENT FILING DATE: 2000-11-22
15 <160> NUMBER OF SEQ ID NOS: 19
17 <170> SOFTWARE: PatentIn Ver. 2.0

Does Not Comply
Corrected Diskette Needed

ERRORED SEQUENCES

RAW SEQUENCE LISTING
PATENT APPLICATION: U

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5266 gctgccatca ttattatccg atgtgacgct gcattttttt tttttttttt 4320
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 5546 acaagcttac aaaacaaa atg gct gca tat gca gct cag ggc tat aag gtg 12711
 5547 Met Ala Ala Tyr Ala Ala Gln Gly Tyr Lys Val
 5548 1 5 10
 5550 cta gta ctc aac ccc tct gtt gct gca aca ctg ggc ttt ggt gct tac 12759
 5551 Leu Val Leu Asn Pro Ser Val Ala Ala Thr Leu Gly Phe Gly Ala Tyr
 5552 15 20 25
 5554 atg tcc aag gct cat ggg atc gat cct aac atc agg acc ggg gtg aga 12807

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5559 Thr Ile Thr Thr Gly Ser Pro Ile Thr Tyr Ser Thr Tyr Gly Lys Phe		
5560 45	50	55
5562 ctt gcc gac ggc ggg tgc tcg ggg ggc gct tat gac ata ata att tgt		12903
5563 Leu Ala Asp Gly Gly Cys Ser Gly Gly Ala Tyr Asp Ile Ile Ile Cys		
5564 60	65	70
5566 gac gag tgc cac tcc acg gat gcc aca tcc atc ttg ggc att ggc act		12951
5567 Asp Glu Cys His Ser Thr Asp Ala Thr Ser Ile Leu Gly Ile Gly Thr		
5568 80	85	90
5570 gtc ctt gac caa gca gag act gcg ggg gcg aga ctg gtt gtg ctc gcc		12999
5571 Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Val Leu Ala		
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5574 acc gcc acc cct ccg ggc tcc gtc act gtg ccc cat ccc aac atc gag		13047
5575 Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile Glu		
5576 110	115	120
5578 gag gtt gct ctg tcc acc acc gga gag atc cct ttt tac ggc aag gct		13095
5579 Glu Val Ala Leu Ser Thr Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala		
5580 125	130	135
5582 atc ccc ctc gaa gta atc aag ggg ggg aga cat ctc atc ttc tgt cat		13143
5583 Ile Pro Leu Glu Val Ile Lys Gly Gly Arg His Leu Ile Phe Cys His		
5584 140	145	150
5586 tca aag aag aag tgc gac gaa ctc gcc gca aag ctg gtc gca ttg ggc		13191
5587 Ser Lys Lys Cys Asp Glu Leu Ala Ala Lys Leu Val Ala Leu Gly		
5588 160	165	170
5590 atc aat gcc gtg gcc tac tac cgc ggt ctt gac gtg tcc gtc atc ccg		13239
5591 Ile Asn Ala Val Ala Tyr Tyr Arg Gly Leu Asp Val Ser Val Ile Pro		
5592 175	180	185
5594 acc agc ggc gat gtt gtc gtc gca acc gat gcc ctc atg acc ggc		13287
5595 Thr Ser Gly Asp Val Val Val Ala Thr Asp Ala Leu Met Thr Gly		
5596 190	195	200
5598 tat acc ggc gac ttc gac tcg gtg ata gac tgc aat acg tgt gtc acc		13335
5599 Tyr Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val Thr		
5600 205	210	215
5602 cag aca gtc gat ttc agc ctt gac cct acc ttc acc att gag aca atc		13383
5603 Gln Thr Val Asp Phe Ser Leu Asp Pro Thr Phe Thr Ile Glu Thr Ile		
5604 220	225	230
5606 acg ctc ccc caa gat gct gtc tcc cgc act caa cgt cgg ggc agg act		13431
5607 Thr Leu Pro Gln Asp Ala Val Ser Arg Thr Gln Arg Arg Gly Arg Thr		
5608 240	245	250
5610 ggc agg ggg aag cca ggc atc tac aga ttt gtg gca ccg ggg gag cgc		13479
5611 Gly Arg Gly Lys Pro Gly Ile Tyr Arg Phe Val Ala Pro Gly Glu Arg		
5612 255	260	265
5614 ccc tcc ggc atg ttc gac tcg tcc gtc ctc tgt gag tgc tat gac gca		13527
5615 Pro Ser Gly Met Phe Asp Ser Ser Val Leu Cys Glu Cys Tyr Asp Ala		
5616 270	275	280
5618 ggc tgt gct tgg tat gag ctc acg ccc gcc gag act aca gtt agg cta		13575
5619 Gly Cys Ala Trp Tyr Glu Leu Thr Pro Ala Glu Thr Thr Val Arg Leu		

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5624	300															315	
5626	gaa	ttt	tgg	gag	ggc	gtc	ttt	aca	ggc	ctc	act	cat	ata	gat	gcc	cac	13671
5627	Glu	Phe	Trp	Glu	Gly	Val	Phe	Thr	Gly	Leu	Thr	His	Ile	Asp	Ala	His	
5628																330	
5630	ttt	cta	tcc	cag	aca	aag	cag	agt	ggg	gag	aac	ctt	cct	tac	ctg	gta	13719
5631	Phe	Leu	Ser	Gln	Thr	Lys	Gln	Ser	Gly	Glu	Asn	Leu	Pro	Tyr	Leu	Val	
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5634	gct	tac	caa	gcc	acc	gtc	tgc	gtc	agg	gct	caa	gcc	cct	ccc	cca	tcg	13767
5635	Ala	Tyr	Gln	Ala	Thr	Val	Cys	Ala	Arg	Ala	Gln	Ala	Pro	Pro	Pro	Ser	
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5638	tgg	gac	cag	atg	tgg	aag	tgt	ttg	att	cgc	ctc	aag	ccc	acc	ctc	cat	13815
5639	Trp	Asp	Gln	Met	Trp	Lys	Cys	Leu	Ile	Arg	Leu	Lys	Pro	Thr	Leu	His	
5640																375	
5642	ggg	cca	aca	ccc	ctg	cta	tac	aga	ctg	ggc	gct	gtt	cag	aat	gaa	atc	13863
5643	Gly	Pro	Thr	Pro	Leu	Ieu	Tyr	Arg	Leu	Gly	Ala	Val	Gln	Asn	Glu	Ile	
5644																395	
5646	acc	ctg	acg	cac	cca	gtc	acc	aaa	tac	atc	atg	aca	tgc	atg	tgc	gcc	13911
5647	Thr	Leu	Thr	His	Pro	Val	Thr	Lys	Tyr	Ile	Met	Thr	Cys	Met	Ser	Ala	
5648																410	
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5651	Asp	Leu	Glu	Val	Val	Thr	Ser	Thr	Trp	Val	Leu	Val	Gly	Gly	Val	Leu	
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5654	gct	gtc	ttg	gcc	gct	tat	tgc	ctg	tca	aca	ggc	tgc	gtg	gtc	ata	gtg	14007
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5660																455	
5662	gtc	ctc	tac	cga	gag	ttc	gat	gag	atg	gaa	gag	tgc	tct	cag	cac	tta	14103
5663	Val	Leu	Tyr	Arg	Glu	Phe	Asp	Glu	Met	Glu	Glu	Cys	Ser	Gln	His	Leu	
5664																475	
5666	ccg	tac	atc	gag	caa	ggg	atg	atg	ctc	gcc	gag	cag	ttc	aag	cag	aag	14151
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5668																490	
5670	gcc	ctc	ggc	ctc	ctg	cag	acc	gct	tcc	cgt	cag	gca	gag	gtt	atc	gcc	14199
5671	Ala	Leu	Gly	Leu	Leu	Gln	Thr	Ala	Ser	Arg	Gln	Ala	Glu	Val	Ile	Ala	
5672																505	
5674	cct	gtc	cag	acc	aac	tgg	caa	aaa	ctc	gag	acc	ttc	tgg	gct	aag		14247
5675	Pro	Ala	Val	Gln	Thr	Asn	Trp	Gln	Lys	Leu	Glu	Thr	Phe	Trp	Ala	Lys	
5676																520	
5678	cat	atg	tgg	aac	ttc	atc	agt	ggg	ata	caa	taç	ttg	gct	ggc	ttg	tca	14295
5679	His	Met	Trp	Asn	Phe	Ile	Ser	Gly	Ile	Gln	Tyr	Leu	Ala	Gly	Leu	Ser	
5680																535	
5682	acg	ctg	cct	ggt	aac	ccc	gcc	att	gct	tca	ttg	atg	gct	ttt	aca	gct	14343
5683	Thr	Leu	Pro	Gly	Asn	Pro	Ala	Ile	Ala	Ser	Leu	Met	Ala	Phe	Thr	Ala	
5684																555	

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5688																560	565	570	14439	
5690	ttg	ggg	ggg	tgg	gtg	gct	gcc	cag	ctc	gcc	gcc	ccc	ggg	gtc	act				14439	
5691	Leu	Gly	Gly	Trp	Val	Ala	Ala	Gln	Leu	Ala	Ala	Pro	Gly	Ala	Ala	Thr				
5692																575	580	585		
5694	gcc	ttt	gtg	ggc	gct	ggc	tta	gct	ggc	gcc	atc	ggc	agt	gtt	gga				14487	
5695	Ala	Phe	Val	Gly	Ala	Gly	Leu	Ala	Gly	Ala	Ala	Ile	Gly	Ser	Val	Gly				
5696																590	595	600		
5698	ctg	ggg	aag	gtc	ctc	ata	gac	atc	ctt	gca	ggg	tat	ggc	gcg	ggc	gtg				14535
5699	Leu	Gly	Lys	Val	Leu	Ile	Asp	Ile	Leu	Ala	Gly	Tyr	Gly	Ala	Gly	Val				
5700																605	610	615		
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5703	Ala	Gly	Ala	Leu	Val	Ala	Phe	Lys	Ile	Met	Ser	Gly	Glu	Val	Pro	Ser				
5704																620	625	630	635	
5706	acg	gag	gac	ctg	gtc	aat	cta	ctg	ccc	gcc	atc	ctc	tcg	ccc	gga	gcc				14631
5707	Thr	Glu	Asp	Leu	Val	Asn	Leu	Leu	Pro	Ala	Ile	Leu	Ser	Pro	Gly	Ala				
5708																640	645	650		
5710	ctc	gtc	ggc	gtg	gtc	tgt	gca	gca	ata	ctg	cgc	cgg	cac	gtt	ggc				14679	
5711	Leu	Val	Val	Gly	Val	Val	Cys	Ala	Ala	Ile	Leu	Arg	Arg	His	Val	Gly				
5712																655	660	665		
5714	ccg	ggc	gag	ggg	gca	gtg	cag	tgg	atg	aac	cgg	ctg	ata	gcc	ttc	gcc				14727
5715	Pro	Gly	Gly	Ala	Val	Gln	Trp	Met	Asn	Arg	Leu	Ile	Ala	Phe	Ala					
5716																670	675	680		
5718	tcc	ccg	ggg	aac	cat	gtt	tcc	ccc	acg	cac	tac	gtg	ccg	gag	agc	gat				14775
5719	Ser	Arg	Gly	Asn	His	Val	Ser	Pro	Thr	His	Tyr	Val	Pro	Glu	Ser	Asp				
5720																685	690	695		
5722	gca	gct	gcc	cgc	gtc	act	gcc	ata	ctc	agc	atc	gtc	act	gtt	acc	cag				14823
5723	Ala	Ala	Ala	Arg	Val	Thr	Ala	Ile	Leu	Ser	Ser	Leu	Thr	Val	Thr	Gln				
5724																700	705	710	715	
5726	ctc	ctg	agg	cga	ctg	cac	cag	tgg	ata	agc	tcg	gag	tgt	acc	act	cca				14871
5727	Leu	Leu	Arg	Leu	His	Gln	Trp	Ile	Ser	Ser	Glu	Cys	Thr	Thr	Pro					
5728																720	725	730		
5730	tgc	tcc	ggt	tcc	tgg	cta	agg	gac	atc	tgg	gac	tgg	ata	tgc	gag	gtg				14919
5731	Cys	Ser	Gly	Ser	Trp	Leu	Arg	Asp	Ile	Trp	Asp	Trp	Ile	Cys	Glu	Val				
5732																735	740	745		
5734	ttg	agc	gac	ttt	aag	acc	tgg	cta	aaa	gct	aag	ctc	atg	cca	cag	ctg				14967
5735	Leu	Ser	Asp	Phe	Lys	Thr	Trp	Leu	Lys	Ala	Lys	Leu	Met	Pro	Gln	Leu				
5736																750	755	760		
5738	cct	ggg	atc	ccc	ttt	gtg	tcc	tgc	cag	cgc	ggg	tat	aag	ggg	gtc	tgg				15015
5739	Pro	Gly	Ile	Pro	Phe	Val	Ser	Cys	Gln	Arg	Gly	Tyr	Lys	Gly	Val	Trp				
5740																765	770	775		
5742	cga	ggg	gac	ggc	atc	atg	cac	act	cgc	tgc	cac	tgt	gga	gct	gag	atc				15063
5743	Arg	Gly	Asp	Gly	Ile	Met	His	Thr	Arg	Cys	His	Cys	Gly	Ala	Glu	Ile				
5744																780	785	790	795	
5746	act	gga	cat	gtc	aaa	aac	ggg	acg	atg	agg	atc	gtc	ggt	cct	agg	acc				15111
5747	Thr	Gly	His	Val	Lys	Asn	Gly	Thr	Met	Arg	Ile	Val	Gly	Pro	Arg	Thr				
5748																800	805	810		
5750	tgc	agg	aac	atg	tgg	agt	ggg	acc	tcc	ccc	att	aat	gcc	tac	acc	acg				15159

RAW SEQUENCE LISTING

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DATE: 04/30/2001

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Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04302001\I721479A.raw

5751 Cys Arg Asn Met Trp Ser Gly Thr Phe Pro Ile Asn Ala Tyr Thr Thr		
5752 815 820 825		
5754 ggc ccc tgt acc ccc ctt cct gcg ccg aac tac acg ttc gcg cta tgg	15207	
5755 Gly Pro Cys Thr Pro Leu Pro Ala Pro Asn Tyr Thr Phe Ala Leu Trp		
5756 830 835 840		
5758 agg gtg tct gca gag gaa tac gtg gag ata agg cag gtg ggg gac ttc	15255	
5759 Arg Val Ser Ala Glu Glu Tyr Val Glu Ile Arg Gln Val Gly Asp Phe		
5760 845 850 855		
5762 cac tac gtg acg ggt atg act act gac aat ctt aaa tgc ccg tgc cag	15303	
5763 His Tyr Val Thr Gly Met Thr Thr Asp Asn Leu Lys Cys Pro Cys Gln		
5764 860 865 870 875		
5766 gtc cca tcg ccc gaa ttt ttc aca gaa ttg gac ggg gtg cgc cta cat	15351	
5767 Val Pro Ser Pro Glu Phe Phe Thr Glu Leu Asp Gly Val Arg Leu His		
5768 880 885 890		
5770 agg ttt gcg ccc ccc tgc aag ccc ttg ctg cgg gag gag gta tca ttc	15399	
5771 Arg Phe Ala Pro Pro Cys Lys Pro Leu Leu Arg Glu Glu Val Ser Phe		
5772 895 900 905		
5774 aga gta gga ctc cac gaa tac ccg gta ggg tgc caa tta cct tgc gag	15447	
5775 Arg Val Gly Leu His Glu Tyr Pro Val Gly Ser Gln Leu Pro Cys Glu		
5776 910 915 920		
5778 ccc gaa ccg gac gtg gcc gtg ttg acg tcc atg ctc act gat ccc tcc	15495	
5779 Pro Glu Pro Asp Val Ala Val Leu Thr Ser Met Leu Thr Asp Pro Ser		
5780 925 930 935		
5782 cat ata aca gca gag gcg gcc ggg cga agg ttg gcg agg gga tca ccc	15543	
5783 His Ile Thr Ala Glu Ala Ala Gly Arg Arg Leu Ala Arg Gly Ser Pro		
5784 940 945 950 955		
5786 ccc tct gtg gcc agc tcc tcg gct agc cag cta tcc gct cca tct ctc	15591	
5787 Pro Ser Val Ala Ser Ser Ala Ser Gln Leu Ser Ala Pro Ser Leu		
5788 960 965 970		
5790 aag gca act tgc acc gct aac cat gac tcc cct gat gct gag ctc ata	15639	
5791 Lys Ala Thr Cys Thr Ala Asn His Asp Ser Pro Asp Ala Glu Leu Ile		
5792 975 980 985		
5794 gag gcc aac ctc cta tgg agg cag gag atg ggc ggc aac atc acc agg	15687	
5795 Glu Ala Asn Leu Leu Trp Arg Gln Glu Met Gly Gly Asn Ile Thr Arg		
5796 990 995 1000		
5798 gtt gag tca gaa aac aaa gtg gtg att ctg gac tcc ttc gat ccg ctt	15735	
5799 Val Glu Ser Glu Asn Lys Val Val Ile Leu Asp Ser Phe Asp Pro Leu		
5800 1005 1010 1015		
5802 gtg gcg gag gag gag cgg gag atc tcc gta ccc gca gaa atc ctg	15783	
5803 Val Ala Glu Glu Asp Glu Arg Glu Ile Ser Val Pro Ala Glu Ile Leu		
5804 1020 1025 1030 1035		
5806 cgg aag tct cgg aga ttc gcc cag gcc ctg ccc gtt tgg gcg cgg ccg	15831	
5807 Arg Lys Ser Arg Arg Phe Ala Gln Ala Leu Pro Val Trp Ala Arg Pro		
5808 1040 1045 1050		
5810 gac tat aac ccc ccg cta gtg gag acg tgg aaa aag ccc gac tac gaa	15879	
5811 Asp Tyr Asn Pro Pro Leu Val Glu Thr Trp Lys Lys Pro Asp Tyr Glu		
5812 1055 1060 1065		
5814 cca cct gtg gtc cat ggc tgc ccg ctt cca cct cca aag tcc cct cct	15927	
5815 Pro Pro Val Val His Gly Cys Pro Leu Pro Pro Lys Ser Pro Pro		

RAW SEQUENCE LISTING

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Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04302001\I721479A.raw

5816	1070	1075	1080	
5818	gtg cct ccg cct cgg aag aag cgg acg gtg gtc ctc act gaa tca acc			15975
5819	Val Pro Pro Pro Arg Lys Lys Arg Thr Val Val Leu Thr Glu Ser Thr			
5820	1085	1090	1095	
5822	cta tct act gcc ttg gcc gag ctc gcc acc aga agc ttt ggc agc tcc			16023
5823	Leu Ser Thr Ala Leu Ala Glu Leu Ala Thr Arg Ser Phe Gly Ser Ser			
5824	1100	1105	1110	1115
5826	tca act tcc ggc att acg ggc gac aat acg aca aca tcc tct gag ccc			16071
5827	Ser Thr Ser Gly Ile Thr Gly Asp Asn Thr Thr Ser Ser Glu Pro			
5828	1120	1125	1130	
5830	gcc cct tct ggc tgc ccc ccc gac tcc gac gct gag tcc tat tcc tcc			16119
5831	Ala Pro Ser Gly Cys Pro Pro Asp Ser Asp Ala Glu Ser Tyr Ser Ser			
5832	1135	1140	1145	
5834	atg ccc ccc ctg gag ggg gag cct ggg gat ccg gat ctt agc gac ggg			16167
5835	Met Pro Pro Leu Glu Gly Glu Pro Gly Asp Pro Asp Leu Ser Asp Gly			
5836	1150	1155	1160	
5838	tca tgg tca acg gtc agt agt gag gcc aac gcg gag gat gtc gtg tgc			16215
5839	Ser Trp Ser Thr Val Ser Ser Glu Ala Asn Ala Glu Asp Val Val Cys			
5840	1165	1170	1175	
5842	tgc tca atg tct tac tct tgg aca ggc gca ctc gtc acc ccg tgc gcc			16263
5843	Cys Ser Met Ser Tyr Ser Trp Thr Gly Ala Leu Val Thr Pro Cys Ala			
5844	1180	1185	1190	1195
5846	gcg gaa gaa cag aaa ctg ccc atc aat gca cta agc aac tcg ttg cta			16311
5847	Ala Glu Glu Gln Lys Leu Pro Ile Asn Ala Leu Ser Asn Ser Leu Leu			
5848	1200	1205	1210	
5850	cgt cac cac aat ttg gtg tat tcc acc acc tca cgc agt gct tgc caa			16359
5851	Arg His His Asn Leu Val Tyr Ser Thr Ser Arg Ser Ala Cys Gln			
5852	1215	1220	1225	
5854	agg cag aag aaa gtc aca ttt gac aga ctg caa gtt ctg gac agc cat			16407
5855	Arg Gln Lys Lys Val Thr Phe Asp Arg Leu Gln Val Leu Asp Ser His			
5856	1230	1235	1240	
5858	tac cag gac gta ctc aag gag gtt aaa gca gcg gcg tca aaa gtg aag			16455
5859	Tyr Gln Asp Val Leu Lys Glu Val Lys Ala Ala Ser Lys Val Lys			
5860	1245	1250	1255	
5862	gct aac ttg cta tcc gta gag gaa gct tgc agc ctg acg ccc cca cac			16503
5863	Ala Asn Leu Leu Ser Val Glu Glu Ala Cys Ser Leu Thr Pro Pro His			
5864	1260	1265	1270	1275
5866	tca gcc aaa tcc aag ttt ggt tat ggg gca aaa gac gtc cgt tgc cat			16551
5867	Ser Ala Lys Ser Lys Phe Gly Tyr Gly Ala Lys Asp Val Arg Cys His			
5868	1280	1285	1290	
5870	gcc aga aag gcc gta acc cac atc aac tcc gtg tgg aaa gac ctt ctg			16599
5871	Ala Arg Lys Ala Val Thr His Ile Asn Ser Val Trp Lys Asp Leu Leu			
5872	1295	1300	1305	
5874	gaa gac aat gta aca cca ata gac act acc atc atg gct aag aac gag			16647
5875	Glu Asp Asn Val Thr Pro Ile Asp Thr Thr Ile Met Ala Lys Asn Glu			
5876	1310	1315	1320	
5878	gtt ttc tgc gtt cag cct gag aag ggg ggt cgt aag cca gct cgt ctc			16695
5879	Val Phe Cys Val Gln Pro Glu Lys Gly Gly Arg Lys Pro Ala Arg Leu			
5880	1325	1330	1335	

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Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04302001\I721479A.raw

5882 atc gtg ttc ccc gat ctg ggc gtg cgc gtg tgc gaa aag atg gct ttg	16743
5883 Ile Val Phe Pro Asp Leu Gly Val Arg Val Cys Glu Lys Met Ala Leu	
5884 1340 1345 1350 1355	
5886 tac gac gtg gtt aca aag ctc ccc ttg gcc gtg atg gga agc tcc tac	16791
5887 Tyr Asp Val Val Thr Lys Leu Pro Leu Ala Val Met Gly Ser Ser Tyr	
5888 1360 1365 1370	
5890 gga ttc caa tac tca cca gga cag cgg gtt gaa ttc ctc gtg caa gcg	16839
5891 Gly Phe Gln Tyr Ser Pro Gly Gln Arg Val Glu Phe Leu Val Gln Ala	
5892 1375 1380 1385	
5894 tgg aag tcc aag aaa acc cca atg ggg ttc tcg tat gat acc cgc tgc	16887
5895 Trp Lys Ser Lys Lys Thr Pro Met Gly Phe Ser Tyr Asp Thr Arg Cys	
5896 1390 1395 1400	
5898 ttt gac tcc aca gtc act gag agc gac atc cgt acg gag gag gca atc	16935
5899 Phe Asp Ser Thr Val Thr Glu Ser Asp Ile Arg Thr Glu Glu Ala Ile	
5900 1405 1410 1415	
5902 tac caa tgt tgt gac ctc gac ccc caa gcc cgc gtg gcc atc aag tcc	16983
5903 Tyr Gln Cys Cys Asp Leu Asp Pro Gln Ala Arg Val Ala Ile Lys Ser	
5904 1420 1425 1430 1435	
5906 ctc acc gag agg ctt tat gtt ggg ggc cct ctt acc aat tca agg ggg	17031
5907 Leu Thr Glu Arg Leu Tyr Val Gly Gly Pro Leu Thr Asn Ser Arg Gly	
5908 1440 1445 1450	
5910 gag aac tgc ggc tat cgc agg tgc cgc gcg agc ggc gta ctg aca act	17079
5911 Glu Asn Cys Gly Tyr Arg Arg Cys Arg Ala Ser Gly Val Leu Thr Thr	
5912 1455 1460 1465	
5914 agc tgt ggt aac acc ctc act tgc tac atc aag gcc cgg gca gcc tgt	17127
5915 Ser Cys Gly Asn Thr Leu Thr Cys Tyr Ile Lys Ala Arg Ala Cys	
5916 1470 1475 1480	
5918 cga gcc gca ggg ctc cag gac tgc acc atg ctc gtg tgt ggc gac gac	17175
5919 Arg Ala Ala Gly Leu Gln Asp Cys Thr Met Leu Val Cys Gly Asp Asp	
5920 1485 1490 1495	
5922 tta gtc gtt atc tgt gaa agc gcg ggg gtc cag gag gac gcg gcg agc	17223
5923 Leu Val Val Ile Cys Glu Ser Ala Gly Val Gln Glu Asp Ala Ala Ser	
5924 1500 1505 1510 1515	
5926 ctg aga gcc ttc acg gag gct atg acc agg tac tcc gcc ccc cct ggg	17271
5927 Leu Arg Ala Phe Thr Glu Ala Met Thr Arg Tyr Ser Ala Pro Pro Gly	
5928 1520 1525 1530	
5930 gac ccc cca caa cca gaa tac gac ttg gag ctc ata aca tca tgc tcc	17319
5931 Asp Pro Pro Gln Pro Glu Tyr Asp Leu Glu Leu Ile Thr Ser Cys Ser	
5932 1535 1540 1545	
5934 tcc aac gtg tca gtc gcc cac gac ggc gct gga aag agg gtc tac tac	17367
5935 Ser Asn Val Ser Val Ala His Asp Gly Ala Gly Lys Arg Val Tyr Tyr	
5936 1550 1555 1560	
5938 ctc acc cgt gac cct aca acc ccc ctc gcg aga gct ggc tgg gag aca	17415
5939 Leu Thr Arg Asp Pro Thr Pro Leu Ala Arg Ala Ala Trp Glu Thr	
5940 1565 1570 1575	
5942 gca aga cac act cca gtc aat tcc tgg cta ggc aac ata atc atg ttt	17463
5943 Ala Arg His Thr Pro Val Asn Ser Trp Leu Gly Asn Ile Ile Met Phe	
5944 1580 1585 1590 1595	
5946 gcc ccc aca ctg tgg gcg agg atg ata ctg atg acc cat ttc ttt agc	17511

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Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04302001\I721479A.raw

5947 Ala Pro Thr Leu Trp Ala Arg Met Ile Leu Met Thr His Phe Phe Ser			
5948 1600	1605	1610	
5950 gtc ctt ata gcc agg gac cag ctt gaa cag gcc ctc gat tgc gag atc			17559
5951 Val Leu Ile Ala Arg Asp Gln Leu Glu Gln Ala Leu Asp Cys Glu Ile			
5952 1615	1620	1625	
5954 tac ggg gcc tgc tac tcc ata gaa cca ctg gat cta cct cca atc att			17607
5955 Tyr Gly Ala Cys Tyr Ser Ile Glu Pro Leu Asp Leu Pro Pro Ile Ile			
5956 1630	1635	1640	
5958 caa aga ctc cat ggc ctc agc gca ttt tca ctc cac agt tac tct cca			17655
5959 Gln Arg Leu His Gly Leu Ser Ala Phe Ser Leu His Ser Tyr Ser Pro			
5960 1645	1650	1655	
5962 ggt gaa atc aat agg gtg gcc gca tgc ctc aga aaa ctt ggg gta ccg			17703
5963 Gly Glu Ile Asn Arg Val Ala Ala Cys Leu Arg Lys Leu Gly Val Pro			
5964 1660	1665	1670	1675
5966 ccc ttg cga gct tgg aga cac cgg gcc cgg agc gtc cgc gct agg ctt			17751
5967 Pro Leu Arg Ala Trp Arg His Arg Ala Arg Ser Val Arg Ala Arg Leu			
5968 1680	1685	1690	
5970 ctg gcc aga gga ggc agg gct gcc ata tgt ggc aag tac ctc ttc aac			17799
5971 Leu Ala Arg Gly Gly Arg Ala Ala Ile Cys Gly Lys Tyr Leu Phe Asn			
5972 1695	1700	1705	
5974 tgg gca gta aga aca aag ctc aaa ctc act cca ata gcg gcc gct ggc			17847
5975 Trp Ala Val Arg Thr Lys Leu Thr Pro Ile Ala Ala Ala Gly			
5976 1710	1715	1720	
5978 cag ctg gac ttg tcc ggc tgg ttc acg gct ggc tac agc ggg gga gac			17895
5979 Gln Leu Asp Leu Ser Gly Trp Phe Thr Ala Gly Tyr Ser Gly Gly Asp			
5980 1725	1730	1735	
5982 att tat cac agc gtg tct cat gcc cgg ccc cgc tgg atc tgg ttt tgc			17943
5983 Ile Tyr His Ser Val Ser His Ala Arg Pro Arg Trp Ile Trp Phe Cys			
5984 1740	1745	1750	1755
5986 cta ctc ctg ctt gct gca ggg gta ggc atc tac ctc ctc ccc aac cga			17991
5987 Leu Leu Leu Ala Ala Gly Val Gly Ile Tyr Leu Leu Pro Asn Arg			
5988 1760	1765	1770	
5990 atg agc acg aat cct aaa cct caa aga aag acc aaa cgt aac acc aac			18039
5991 Met Ser Thr Asn Pro Lys Pro Gln Arg Lys Thr Lys Arg Asn Thr Asn			
5992 1775	1780	1785	
5994 cgg cgg cag gac gtc aag ttc cgg ggt ggc ggt cag atc gtt ggt			18087
5995 Arg Arg Pro Gln Asp Val Lys Phe Pro Gly Gly Gln Ile Val Gly			
5996 1790	1795	1800	
5998 gga gtt tac ttg ttg cgg cgc agg ggc cct aga ttg ggt gtc cgc gcg			18135
5999 Gly Val Tyr Leu Leu Pro Arg Arg Gly Pro Arg Leu Gly Val Arg Ala			
6000 1805	1810	1815	
6002 acg aga aag act tcc gag cgg tcg caa cct cga ggt aga cgt cag cct			18183
6003 Thr Arg Lys Thr Ser Glu Arg Ser Gln Pro Arg Gly Arg Arg Gln Pro			
6004 1820	1825	1830	1835
6006 atc ccc aag gct cgt cgg ccc gag ggc agg acc tgg gct cag ccc ggg			18231
6007 Ile Pro Lys Ala Arg Arg Pro Glu Gly Arg Thr Trp Ala Gln Pro Gly			
6008 1840	1845	1850	
6010 tac cct tgg ccc ctc tat ggc aat gag ggc tgc ggg tgg gcg gga tgg			18279
6011 Tyr Pro Trp Pro Leu Tyr Gly Asn Glu Gly Cys Gly Trp Ala Gly Trp			

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Input Set : A:\seqlist.txt

Output Set: N:\CRF3\04302001\I721479A.raw

6012	1855	1860	1865															
6014	ctc	ctg	tct	ccc	cgt	ggc	tct	cg	cc	tt	gg	cc	cc	aca	gac	ccc	18327	
6015	Leu	Leu	Ser	Pro	Arg	Gly	Ser	Arg	Pro	Ser	Trp	Gly	Pro	Thr	Asp	Pro		
6016	1870		1875		1880													
6018	cg	cg	tg	cg	aa	t	tg	gg	t	aa	tg	taat	atgc	ttt	gtt	ccc	18374	
6019	Arg	Arg	Arg	Ser	Arg	Asn	Leu	Gly	Lys									
6020	1885		1890															
6022	act	gt	tac	ttt	ta	g	c	t	cg	tac	aa	aa	ata	ca	at	gt	18434	
6024	tt	cc	cc	at	gt	tt	tt	tc	t	tt	cc	tt	cc	ta	ca	at	ct	18494
6026	at	ag	ct	at	tc	ta	ta	ac	ta	ta	tt	tt	tc	ta	tt	tc	at	18554
6028	at	tt	ca	at	tt	tt	aa	c	t	at	tt	tt	tc	tt	ta	aa	aa	18614
6030	t	ga	at	ca	tg	ca	gg	aa	g	at	ct	ga	cc	ac	gg	gg	tc	18674
6032	cg	ta	gt	tc	gt	cc	aa	gt	gc	ga	ag	cg	gg	cc	aa	ag	cg	18734
6034	cg	ga	ca	gt	gc	aa	ac	gt	gc	gc	ta	aa	tt	tg	ca	at	at	18794
6036	gc	ac	gc	cc	ca	ta	gt	ac	tc	gt	cg	at	cc	ca	ag	gg	cc	18854
6038	gt	ac	cc	gg	ca	tt	gg	at	ct	gt	tc	gg	ac	gg	gt	cc	cg	18914
6040	tg	ag	gc	gc	t	tt	ta	tt	at	tc	tc	tt	cc	tt	ca	tt	tt	18974
6042	aa	ct	ac	cc	gc	aa	gg	ct	tt	tt	cc	tt	tt	tt	tt	tt	tt	19034
6044	ta	cg	ac	cc	gg	at	ta	at	ct	at	tc	ta	tt	tt	tg	at	gt	19094
6046	tt	at	gt	at	ta	tc	19154											
6048	aa	at	at	gt	tc	cc	ag	ct	gt	tc	tt	tt	tc	tc	tc	tc	tc	19214
6050	tt	g	ca	aa	at	at	at	ag	tc	ta	tt	tt	tc	tc	tc	tc	tc	19274
6052	cg	tt	tc	tata	tc	tt	tc	19334										
6054	ta	at	at	ca	ac	cc	ta	tc	at	tc	19394							
6056	ta	ac	aa	aa	at	tc	19454											
6058	at	ag	gg	gg	ac	cc	cc	tc	19514									
6060	tt	tc	19574															
6062	tc	19634																
6064	t	at	tc	cc	19694													
6066	at	gc	tt	tc	19754													
6068	tt	19814																
6070	ta	c	cg	aa	at	ca	19874											
6072	tc	19934																
6074	tt	at	tc	19994														
6076	tt	tc	at	tc	20054													
6078	tc	cg	tt	tc	20114													
E--> 6080	aaaa	20160																

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/721,479A

DATE: 04/30/2001

TIME: 08:50:11

Input Set : A:\seqlist.txt
Output Set: N:\CRF3\04302001\I721479A.raw

L:6080 M:252 E: No. of Seq. differs, <211>LENGTH:Input:20220 Found:20160 SEQ:12